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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,159	06/21/2005	Tatsuya Mitsugi	Q87978	3324
23373 7590 10/30/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER BONZO, BRYCE P	
			ART UNIT 2113	PAPER NUMBER
			MAIL DATE 10/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,159

Applicant(s)

MITSUGI ET AL.

Examiner

Bryce P. Bonzo

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

FINAL OFFICIAL ACTION

Status of the Claims

Claims 1-4 are rejected under 35 USC §102.

Rejections under 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Schell (United States Patent No. 6,069,857). Applicant is advised the due to the size of the reference, the citations are given by paragraph number.

1. An information storage system provided with a bulk memory and a host device for controlling writing of data into said bulk memory, said host device comprising:

an NG table for storing addresses specifying areas of said bulk memory into which data cannot be written (370);

a performance-guaranteed environment determination means for determining whether or not a current environment of said bulk memory is outside a performance-guaranteed environment in which performance of said bulk memory is guaranteed (362, the temperature sensor monitors for an environmental problem); and

a control means for writing data in an area of said bulk memory specified by an address which is not stored in said NG table when said performance-guaranteed environment determination means determines that the current environment is outside the performance-guaranteed environment (370: the defect area exists specifically to alter the writing path).

2. The information storage system according to claim 1, characterized in that said control means includes:

an address acquisition means for acquiring the address of said bulk memory which is not stored in said NG table when said performance-guaranteed environment determination means determines that the current environment of said bulk memory is outside the performance-guaranteed environment (370);

a data acquisition means for acquiring the data which are to be written into said bulk memory, a data writing means for writing the data acquired by said data acquisition means into the area of said bulk memory which is specified by the address acquired by said address acquisition means (370); and

a verification checking means for comparing the data which have been written into the area by said data writing means with the data acquired by said data acquisition means, and for writing the address acquired by said address acquisition means in said NG table when determining that the data which have been written into the area does not match the data acquired by said data acquisition means (370).

3. . The information storage system according to claim 2, characterized in that said address acquisition means makes a request of a file system that manages files stored in said bulk memory to acquire the address which is not stored in said NG table so as to acquire the address of said bulk memory from said file system (370).

4. The information storage system according to claim 2, characterized in that said data acquisition means acquires the data from a memory on a cluster-by-cluster basis (this is a property of rotation memories, that eh have to be read as groups).

5. The information storage system according to claim 1, wherein the addresses specifying areas of said bulk memory into which data cannot be written are stored in said NG table if an attempt, by said control means, to write in said areas is unsuccessful and wherein the host device is a separate device from the bulk memory (¶554).

6. The information storage system according to claim 2, wherein if said verification checking means determines that the data which have been written into the area does not match the data acquired by said data acquisition means, data writing means rewrites the data acquired by said data acquisition means into an area of said bulk memory which is specified by a different address.(¶554).

7. The information storage system according to claim 6, wherein if a number of attempts to write the data acquired by said acquisition means into bulk memory exceeds a

permissible number of times, the verification checking means generates an error event (¶544, the determination that a threshold is reached triggers recovery, which is an error event).

Claims 8-14 are the host controller embodiment of claims 1-7 are rejected on the same grounds.

Response to Applicant's Arguments

Argument I: Applicant has argued that Schell does not disclose a host device which contains the defect table. Applicant is pointed to the 2nd and 3rd sentences of the cited paragraph. These sentences describe the the memory controller in the cartridge with its own solid state memory holding the defect table. For purposes of claim interpretation, the drive controller is the host, while the optical disk is the media. Schell differs from standard optical media in that the drive controller forms an enclosure around the media, unlike modern optical media which is inserted into the drive bay to be read by the controller.

Argument II: Applicant has argued that Schell fails to determine whether the current environment is outside the performance guaranteed environment. The 2nd and 3rd sentences of the cited paragraph describe that a change in temperature is detrimental to the read and writing operations. Schell not only detects this change, but also has the capability to adjust the power of the lasers to compensate for the excess thermal

Art Unit: 2113

energy. Clearly Schell is making a determination that performance is unsatisfactory and must be changed.

Argument III: Applicant argues that Schell's defect table is created during formatting. Nothing in claim 2 requires the table's creation at any other time.

Argument IV: Applicant argues that Schell does not disclose the determination of a data mismatch during a read (or acquisition). Paragraph 544 explicitly describes the failed attempts to access data.

Argument V: Applicant argues that addresses in the defect table of Schell are determined before hardware devices even access the optical disk. First, this limitation is not claimed. Second, if no devices have accessed the optical disk, it is impossible to determine the faulty locations on the disk. Third, paragraph 544 makes it clear that storage accesses during normal usage may result in remapping from "not good" location to "good" locations.

Final Disposition

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryce P. Bonzo whose telephone number is (571)272-3655. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571)272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2113

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Bryce P Bonzo
Primary Examiner
Art Unit 2113